

## MYRMECOPHILOUS INSECTS FROM CUBA.

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A collection of myrmecophilous insects that I made in Cuba the past winter, though very small, includes several genera new to the fauna of that island. In addition to records of these, I have described a Clavigerid beetle, *Fustiger schwarzi*, sp. nov., from a specimen in the U. S. National Museum.

## ORTHOPTERA.

*Myrmecophila americana* Sauss.

Guantanamo; Cienfuegos.

I am following Schimmer (Zeitschr. wiss. Zoöl. Bd. xciii. Heft. 3, p. 432) in considering this to be the same as *M. prenolepidis* Wasm.

My specimens were taken with *Prenolepis longicornis* Latr., the usual host. Besides its wide-spread distribution *M. americana* is interesting in that it lives only with this one species of ant, instead of taking up with almost any species, like our North American forms do. Assmuth (Zeitschr. f. wiss. Insektenbiol. 1907, Bd. iii, p. 363-364) has given an interesting account of the moving of a colony of the host ant to a new nesting site. The crickets and the beetle, *Coluocera maderæ* Woll. accompanied the ant column and entered the new nest with it. *Myrmecophila* does not always leave a nest when the hosts do, for specimens are frequently found in formicaries that have been deserted by the ants. In connection with the local distribution of *Myrmecophila* the following note is of interest.

On Plummer's Island, Maryland, in an open-air insectary, several cigar boxes used as breeding cages had been left for some time on a high shelf. When I looked into these I found them tenanted by populous colonies of *Crematogaster lineolata* Say, and with these, several adults of *Myrmecophila pergandei* Scud. The crickets had either climbed the five feet of pole that held the shelves, or they had been transported by the ants, perhaps as immature phases. I think the latter more probable, chiefly because of some observations made on a related species of cricket on various islands in the Southwest Pacific. I found the cricket abundant,

and often on small isolated and deserted coral islands where one wondered how even the host ant could have reached and established itself.

#### HEMIPTERA.

*Rhithidoporus indentatus* Uhler.

Mina Carlota, Trinidad Mts.

Two specimens taken in a flourishing colony of *Solenopsis geminata* Fabr. indicate that this species resembles some of our North American species of *Thyrecoris* in having myrmecophilous tendencies.

#### COLEOPTERA.

*Fustiger schwarzi* sp. nov.

Length, 1.50 mm. Color reddish brown, the elytra somewhat lighter than the rest. Head nearly three times as long as broad; as broad in front as behind; sides subparallel; front transversely impressed between the eyes; occipital corners obtusely angulate, border feebly concave. Eyes small and convex, located at middle of sides of head. Antennæ one and one-fourth times as long as head; terminal joint slightly concave at middle, thickened at apical half, the end broadly rounded. Prothorax as broad as long, with a large median fovea along basal half; sides evenly convex. Elytra taken together about as long as broad, broadest behind, with narrowly rounded humeral angles and convex sides. Abdomen very deeply impressed transversely at base, tuberculate on either side and with a rather scant brush of yellow hairs. First segment margined at sides for entire length. Propygidium nearly four times as broad as long.

Shining. Head, antennæ and basal third of elytra foveolately punctate. Abdomen minutely punctate above, the ventral surface with abundant rather coarse punctures, fine recumbent white hairs moderately abundant everywhere except on abdomen.

Described from a unique female taken at Cayamas, Cuba, January 2, 1904, by E. A. Schwarz. It was in the nest of an ant of which no specimens were preserved.

Type No. 21569. U. S. N. M.

*Coluocera maderæ* Woll.

Cienfuegos.

Several specimens from one nest of *Prenolepis longicornis* Latr.

## HYMENOPTERA.

*Orasema minutissima* Howard.

Mina Carlota, Trinidad Mts.

Several pupæ and adults were found in a hollow twig, with a colony of *Wasmannia auropunctata* Roger.

*Acanthopria crassicornis* Ashm.

Santiago de Cuba.

A single specimen taken in a nest of *Cyphomyrmex rimosus* Spin. var. *minutus* Mayr. agrees closely with the type from Grenada.

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DISTRIBUTIONAL NOTES ON NEW ENGLAND  
ODONATA.

PART II.<sup>1</sup>

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The following additional records for Vermont are based on another small collection sent me by Mr. D. Lewis Dutton from Brandon. The specimens were captured in July, 1916.

*Lestes unguiculatus* Hagen; new to Vermont.

*Lestes uncatus* Kirby; new to Vermont.

*Argia violacea* (Hagen); new to Vermont.

*Nehalennia irene* (Hagen); new to Vermont.

*Amphiagrion saucium* (Burm.); new to Vermont.

*Enallagma hageni* (Walsh); new to Vermont.

*Æshna verticalis* (Hagen); new to Vermont.

*Libellula pulchella* Drury; new to Vermont.

The following record is new to Concord, Mass., bringing the known species from this township to sixty-eight.

*Argia mæsta* Hagen. Female taken August 15, 1916, and previously overlooked.

<sup>1</sup> The figures in the chart of the Zygoptera published with this paper originally appeared in the author's manual of Odonata of New England, Parts I-II (Memoir of the Thoreau Museum of Natural History, II; 1-23, 1917. They are republished dichotomously here, because of numerous requests that they be available in the present form, and where they will reach more students of Odonata through the larger circulation of Psyche.